

**IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
WACO DIVISION**

IOENGINE, LLC,
Plaintiff/Counterclaim Defendant,

v.

ROKU, INC.,
Defendant/Counterclaim Plaintiff.

C.A. No. 6:21-cv-1296-ADA-DTG

JURY TRIAL DEMANDED

ROKU, INC.'S OPENING SUPPLEMENTAL CLAIM CONSTRUCTION BRIEF

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I. INTRODUCTION

The parties' constructions reflect their agreement that a "terminal" is more than just a display; instead, a "terminal" must be a computing device of some type. The specification and IOENGINE's recent Patent Owner Preliminary Responses ("POPRs") take it a step further. Both confirm that a "terminal" is a specific type of computing device that is distinct from *any* of the "peripheral devices" described in the specification, of which a "monitor" or "display" is an example. Because the parties' dispute has become clear and because the Court could not have accounted for IOENGINE's POPRs filed after the *Markman* Order, the Court should define exactly *what type* of computing device qualifies as a "terminal" in light of the intrinsic record.

Roku's expert argued that a "terminal" is "a computing device through which the user engages the portable device," emphasizing the specification's explanation that the portable device uses the terminal's traditional user interface to allow the user to engage, *i.e.*, interact with, the portable device through the terminal. In other words, the terminal provides the interface through which the user interacts, and the terminal itself modifies that interface based upon the user's inputs.

IOENGINE's expert argued that a terminal is any "computing device," and that a computing device is any device with "general purpose processing capabilities and an ability to load and execute program code," regardless of how those capabilities are used (or even if they are used at all). But IOENGINE's construction contradicts the specification, which includes devices that satisfy this construction but are labeled "peripheral devices" instead of "terminals." IOENGINE's argument finds its genesis with positions it took after the Court issued its "plain meaning" construction in the *Markman* Order, in response to IPRs filed by Roku. Specifically, IOENGINE argued in its POPRs that because the specification separately uses the terms "peripheral devices" and "terminals," a "terminal" must be defined in a way that distinguishes these two terms. *See* Ex. A1 at 23. The parties concur on that basic point. In building its proposed

distinction, IOENGINE directed the PTAB to an earlier IPR involving a parent patent, U.S. Patent No. 9,059,969 (“the ’969 Patent”). IOENGINE emphasized statements that the “terminal” required at least a general-purpose processor. But IOENGINE ignored other assertions about the terminal’s “interactive user interface” (“IUI”) that explain how the “terminal” must work. Specifically, in another IPR on the ’969 Patent, IOENGINE repeatedly stated (when arguing claim construction in order to distinguish prior art) that the “*terminal*” must act responsively to the user’s input by modifying what is presented on the IUI. Ex A2 at 13-17. Those statements—which form disclaimers because they describe the requirements of specific claim elements, *i.e.*, that the “terminal” itself must act responsively to the user’s “IUI” input—are binding. They are equally applicable here because all the same language is in the Asserted Claims.

Based on the specification and IOENGINE’s IPR disclaimers, the Court should construe “terminal” as “a computing device through which the user engages the portable device and that modifies what is presented in the interactive user interface in response to the user’s inputs,” consistent with and building upon Roku’s expert’s construction.¹

II. THE INTRINSIC RECORD COMPELS ROKU’S CONSTRUCTION

A. A “Terminal” is Distinct from a “Peripheral Device”

As a threshold point, the specification distinguishes a “terminal” from a mere “peripheral device.” Although a “terminal” must have a “display” mechanism (like a video monitor, Ex. A3, 4:50-56), the specification refers to a device that is merely a display (such as a “monitor”) as a “peripheral device,” not a “terminal” (*id.*, 15:56-64). Other examples of “peripheral devices” are

¹ While the Court previously considered the word “engage” as used in Roku’s construction, it focused on the physical connection between the portable device and terminal. Dkt. No. 86 at 14. A physical connection, however, is a different type of engagement. As discussed *infra*, it is the *functional* engagement and relationship between the terminal and portable device that qualifies a computing device as a “terminal.”

audio devices, cameras, and external processors. *Id.* And less than one month after the *Markman* Order, IOENGINE filed a POPR making exactly this point:

The specification distinguishes “terminals,” which are computing devices, from “peripheral devices.” See Ex1001, 3:56-59 (“computing devices”, 15:56-64 (“[p]eripheral devices”). A peripheral device may connect to a computing device . . . Peripheral devices may include “output device” such as “monitors”

Ex. A1 at 23. The question for the Court, therefore, is what qualifies a computing device as a “terminal” instead of merely a “peripheral device.”

B. The Specification

The defining elements of a “terminal” are in the specification, based on how the terminal allows the user to “engage” or interact with the portable device. As background, the specification describes a portable device (such as a thumb drive) that communicates with (1) a terminal (such as a laptop or desktop computer); and (2) the Internet (by tunneling through the terminal).² Ex. A3, Abstract, 2:48-54, 3:57-63, 4:8-9, 4:57-61, 9:3-4, 29:41-47. “[T]erminals may be any number of computing devices *such as* servers, workstations, desktop computers, laptops, portable digital assistants (PDAs), *and/or the like.*” *Id.*, 3:56-59 (emphasis added). The specification then describes the key, and distinguishing, requirements of a “terminal”:

The type of [terminal] used is not important other than that the device should provide a compatible mechanism of *engagement* to the [portable device] and *provide an operating environment for the user to engage the [portable device] through the [terminal]*.

Id. at 3:59-63 (emphasis added). The terminal makes the portable device “very easy to use; at most it requires users to simply plug the device into any existing and available desktop or laptop computer, through which the [portable device] can make use of a traditional user interface and input/output (I/O) peripherals. . . .” *Id.*, 2:48-53. To accomplish this, a portable device driver is

² The portable device is referred to in the specification as a “tunneling client access point” or “TCAP,” and the terminal is referred to in the specification as an “access terminal” or “AT.”

installed on the terminal so that “the [terminal] can execute program instruction from the [portable device]’s memory, which allows the [portable device] to use the [terminal]’s I/O and allows the user to interface with [portable device] facilities.” *Id.*, 6:63-7:2. The specification illustrates various embodiments of IUI actions in Figures 5-8, all of which are “accessed through” a terminal and the IUI presented on the terminal. *Id.*, 9:11-13. Indeed, as IOENGINE stated in a POPR on a parent patent (described further below), the specification “consistently and invariably describes the terminal as acting *responsively* to the user’s input [on such IUIs] by modifying what is presented.” Ex. A2 at 15. This requirement of the terminal is also confirmed by the specification’s explanation that “[a]t any time the user may select to terminate [portable device] related facilities executing either on the [terminal], a backend server, on the [portable device] itself” by “severing the connection” with the terminal. Ex. A3, 5:12-21. In other words, when the portable device is not connected to the terminal, the user cannot interact with the portable device.

C. IOENGINE’S POPRs on the Asserted Patents and Parent Patents

Just twenty-three days after the Court’s *Markman* Order, IOENGINE stated in POPRs on the Asserted Patents that a “terminal” is a “computing device,” and that this encompasses any device with “general purpose processing capabilities and an ability to load and execute program code.” Ex. A1 at 26; Ex. A4 at 18; Ex. A5 at 20. This was IOENGINE’s basis for arguing that the TV and monitors relied upon in Roku’s petitions were merely displays or “peripheral” devices, and not “terminals.” *See* Ex. A1 at 25-26, 36-38; Ex. A4 at 18, 21-24; Ex. A5 at 20, 35-39. In support, IOENGINE selected certain statements from an earlier IPR involving the parent ’969 Patent. *See* Ex. A1 at 25 (citing IPR2019-00906). But that IPR and others involving the ’969 Patent include additional, equally binding statements defining the type of computer functionality a “terminal” must have.

In particular, IOENGINE addressed the requirements of a “terminal” in IPR2019-00879

(the “-00879 IPR”) by arguing with respect to a specific component on the terminal: the IUI that the terminal’s “output component” will “present.” In the section of its POPR addressing “Claim Construction,” IOENGINE included a 4-page subsection entitled “IUI,” in which it described the specific requirements of the “terminal’s” functions with respect to its IUI. Ex A2 at 13-17. IOENGINE then distinguished the applied prior art based on its proposed construction, which it supported with those statements. *Id.* at 21-23. These statements are textbook examples of disclaimers: they are about what a particular claim element requires, they describe why the claim language must be limited, and they were made to distinguish prior art. Likewise, every piece of claim language that IOENGINE identified and limited appears in the Asserted Claims.

1. IOENGINE’s IPR Statements About the Requirements of the Terminal and Its IUI Were Made To Distinguish Prior Art

In the -00879 IPR, IOENGINE argued that the term “IUI” means “a presentation containing interface elements with which a user may interact to result *in the terminal* taking action responsively by modifying what is presented.” Ex. A2 at 13 (emphasis added). IOENGINE thus defined the scope of a component of the terminal (*i.e.*, the IUI that is displayed on the terminal’s “output component”) by specifying what the “terminal” must do. IOENGINE then stated that the “terminal” is the device that must act responsively to the user’s input:

The claims uniformly require the IUI to be presented on the access terminal, *id.* Abstract, 4:39-64, claims 1, 28, 29 (display on/by “the terminal output component”), Figs. 5-8. Furthermore, the IUI is ‘interactive’ in the sense that the user may manipulate the IUI such that *the device on which the IUI reside[s]*—the terminal—acts *responsively* to the user’s input by modifying what is presented.”

Id. at 13 (emphasis in original). IOENGINE again confirmed that *the terminal* must modify the IUI in response to user input, regardless of whether the user input may also “ultimately be used to cause the [portable device] to execute code.” *Id.* at 15. In fact, IOENGINE explained that this aspect of the terminal is “consistently and invariably” described in the specification:

Likewise, the examples of the “baseline” IUIs in the ’969 specification ... all provide for the device presenting the user interface—the terminal—to take responsive action. Although the IUI may ultimately be used to cause the TCAP to execute code, ’969 Patent 6:64-67, 7:12-14, 7:45-47, 8:37-41, 9:5-10:46, 12:33-62, the claims require that it be presented on the terminal, and ***the specification consistently and invariably describes the terminal as acting*** responsively to the user’s input by modifying what is presented....

Id. (bolded added). IOENGINE went on to explain that the inventor intended the user to engage, *i.e.*, interact with, the portable device through the terminal and for the terminal to modify the IUI:

The specification shows that what the inventor intended by an IUI was for the terminal to present one or more interface elements for the user to “engage” with, and then act responsively to modify the presentation of the interface.

Id. at 16-17; *see also id.* at 14-15 (explaining that a “central purpose” of the alleged invention was to allow the user to interact with a portable device using the I/O peripherals of the terminal).

2. IOENGINE’S Statements Qualify as Disclaimers

For disclaimer to attach, “the alleged disavowing actions or statements made during prosecution [need to] be both clear and unmistakable.” *Aylus Networks, Inc. v. Apple Inc.*, 856 F.3d 1353, 1359 (Fed. Cir. 2017) (citation omitted). This standard is satisfied when a patentee states what a claim requires, entitling the public to rely on the statement regardless of whether the word “disclaimer” is used:

[A]pplicants rarely submit affirmative disclaimers along the lines of “I hereby disclaim the following...” during prosecution and need not do so to meet the applicable standard... Saffran’s unqualified assertion that “the device used is a sheet” extends beyond illuminating “how the inventor understood the invention,” Phillips v. AWH Corp., 415 F.3d 1303, 1317 (Fed. Cir. 2005) (en banc), to provide an affirmative definition for the disputed term....

Saffran v. Johnson & Johnson, 712 F.3d 549, 559 (Fed. Cir. 2013) (emphasis added). When the patentee makes such a statement (in original prosecution or in a POPR), the patentees’ claim is narrowed within the scope of the claim surrendered. *Aylus*, 856 F.3d at 1359, 1361-63 (finding a clear and unmistakable surrender of claim scope in a POPR based upon the patentee’s argument

that the challenged claims “***require*** that *only* the control point logic ... be invoked [in certain circumstances].”) (bolded added).

Likewise, IOENGINE argued “the claims ***require*** that [the IUI] be presented on the terminal, and ***the specification consistently and invariably describes the terminal as acting responsively*** to the user’s input by modifying what is presented.” Ex. A2 at 15 (bolded added). Based upon this argument and the others presented above, IOENGINE represented that IUI must mean “a presentation containing interface elements with which a user may interact to result *in the terminal* taking action responsively by modifying what is presented.” *Id.* at 13. It is difficult to imagine clearer disclaimers of claim scope than a “claim construction” section specifying the scope of identified claim terms in support of arguments about why those requirements are missing in the prior art. *Id.* at 13-17, 21-23. The estoppel resulting from statements about the meaning of claim elements is so powerful that IOENGINE is bound by those statements regardless of whether they were ultimately adopted by the PTAB. *CUPP Computing AS v. Trend Micro Inc.*, 53 F.4th 1376, 1383 (Fed. Cir. 2022).

3. IOENGINE’S Disclaimers Apply to the Asserted Claims

Disclaimers from parent patents can apply to child patents. *See, e.g., MBO Labs. Inc. v. Becton, Dickinson & Co.*, 602 F.3d 1306, 1318 (Fed. Cir. 2010). The legal question in determining whether a disclaimer applies in such circumstances is whether the “statements from prosecution of a familial patent relat[es] to the same subject matter as the claim language at issue in the patent being construed.” *Ormco Corp. v. Align Tech.*, 498 F.3d 1307, 1314 (Fed. Cir. 2007).

All of the claim language identified by IOENGINE in connection with the above-quoted disclaimers also appears in the Asserted Claims. *Elkay Manufacturing Co. v. EBCO Manufacturing Co.*, 192 F.3d 973, 980 (Fed. Cir. 1999) (“[w]hen multiple patents derive from the same initial application, the prosecution history regarding a claim limitation in any patent that has

issued applies with equal force to subsequently issued patents that contain the same claim limitation.”). Specifically, throughout the entire 4-page POPR subsection entitled “IUI,” IOENGINE identified only the following claim language: “terminal”; “interactive user interface” (or “IUI”); and “the terminal output component.” This same language is in each of the Asserted Claims. Ex. A3, 46:50-51; Ex. A6, 32:48-49, 32:66-67, 36:39-40, 36:47-48, 39:38-89, 39:54-55. And IOENGINE has already highlighted the similarity between the ’969 Patent’s claims and the Asserted Claims in this litigation while arguing for summary judgment of no invalidity under 35 U.S.C. § 101, stating that the Asserted Patents “are continuations of the ’969... Patent[] and share identical specifications and *similarly structured claims*.” Dkt. No. 190 at 7-9 (emphasis added).

Of course, the claims in the parent ’969 Patent are not identical to the Asserted Claims here, nor could they be: there must be a difference for continuation patents to issue. But these differences do not make the Asserted Claims patentably distinct, and IOENGINE even filed a terminal disclaimer between the ’969 Patent and the Asserted Patents. Ex. A7; Ex. A8; Ex. A9; Ex. A10. Additional, non-verbatim language present in the ’969 Patent is irrelevant, especially when the 4-page subsection on the claim construction of the terminal’s “IUI” never identifies any claim language other than the elements that are identical with the Asserted Claims. Nor can IOENGINE avoid the estoppels by arguing that it did not really need to go as far as it did to distinguish the prior art. *Tech. Props. Ltd. LLC v. Huawei Techs. Co.*, 849 F.3d 1349, 1359 (Fed. Cir. 2017) (citations omitted) (“we hold patentees to the actual arguments made, not the arguments that could have been made”).

Indeed, IOENGINE’s disclaimers would still be binding even if the claim language it identified did not also appear in the Asserted Claims. What matters is the scope of a patentee’s subject matter relinquishment—here, “terminals” that do not satisfy IOENGINE’s stated

requirements of acting responsively to the user’s IUI input by modifying the presentation—and not on the particular words in the claim through which that relinquishment arose. *Ormco*, 498 F.3d at 1314. Even the cases suggesting that familial disclaimer generally applies to “the same claim limitations” recognize they may also apply to claims that are not materially different. *Regents of the Univ. of Minn. v. AGA Med. Corp.*, 717 F.3d 929, 944 (Fed. Cir. 2013).

Finally, the prosecution history of a parent patent is always “highly instructive,” particularly when the subject matter of the parent patent and patent-in-suit is similar. *Andersen Corp. v. Fiber Composites, LLC*, 474 F.3d 1361, 1368-69 (Fed. Cir. 2007). Thus, even if the Court does not find that these statements rise to the level of disclaimer, it is still relevant that IOENGINE defined, as part of the intrinsic record, how a “terminal” must function and how a user engages or interacts with the portable device through the “terminal.” *Iridescent Networks, Inc. v. AT&T Mobility, LLC*, 933 F.3d 1345, 1352-1353 (Fed. Cir. 2019) (“[a]ny explanation, elaboration, or qualification presented by the inventor during patent examination is relevant, for the role of claim construction is to ‘capture the scope of the actual invention’ that is disclosed, described, and patented” regardless of whether the statement amounts to a disclaimer) (citation omitted). Here, IOENGINE’s -00879 POPR statements are strong intrinsic evidence of how the specification distinguishes a “terminal” from a “peripheral device,” under any standard.

III. A MERE “COMPUTING DEVICE” CONSTRUCTION IS INCOMPLETE

IOENGINE’s position that a “terminal” encompasses any computing device, or any device with general purpose processing capabilities, is contradicted by the intrinsic record in three ways.

First, IOENGINE ignores the specification’s clear explanation that only *some* computing devices, with particular engagement and interactivity attributes, are “terminals.” Ex. A3, 3:56-63.

Second, IOENGINE ignores its own clear and unmistakable statements that “terminals”

must take action responsively to user input by modifying what is presented in an IUI.

Third, as can be seen in IOENGINE’s most recent POPR, IOENGINE focuses only on *some* of the devices the specification labelled as “peripheral devices”—“output devices such as monitors, video devices, or [] video display[s]”—and then argued that these devices may not have general purpose processors with an ability to load and execute code, which its “computing device” construction would distinguish and exclude.³ Ex. A1 at 23. But IOENGINE’s argument ignores that “monitors” or “displays” are not the only examples of “peripheral devices” cited in the specification. The specification explains that “peripheral devices” also include “audio devices, cameras, dongles..., *external processors* (for added functionality), ... network interfaces, printers, scanners, storage devices, video devices, visors, and/or the like.” Ex. A3, 15:59-64 (emphasis added). Put plainly, an “*external processor*,” which the specification calls a “peripheral device,” must by definition have “general purpose processing capabilities and can load and execute program code,” making an external processor both a “terminal” and a “peripheral device” under IOENGINE’s construction. And IOENGINE’s IPR arguments note that “monitors” *could* have general purpose processing capabilities that would then turn the peripheral device into a “terminal.” The entire purpose of claim construction, as well as the basic public notice function that the intrinsic record is meant to provide, is to set forth what potentially lies in, or outside, of a patent’s claims. For at least the reasons set forth above, a “computing device” construction fails to do this. The intrinsic record’s distinction of “terminals” versus “peripheral devices” requires the specific processing functions demanded of a “terminal,” as set forth in Roku’s construction.⁴

³ “An ability” of the terminal to execute code is also irrelevant if the code that is being executed is not code from the portable device. *See, e.g.*, Ex. A3, 6:63-7:2.

⁴ Likewise, the PTAB has twice recognized that construing “terminal” to include any device with a general purpose processing capabilities is an incomplete baseline that fails to capture the full scope of the term. *See* Ex. A11 at 3 n. 2; Ex. A12 at 10.

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Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that on January 2, 2024, I electronically filed the foregoing with the Clerk of the Court for the United States District Court for the Western District of Texas, Waco Division, via the CM/ECF system, which will send a notice of filing to all counsel of record who have consented to service by electronic means. An electronic copy of the foregoing, including any attached exhibits, was also sent via email to counsel of record.

/s/ Tia D. Fenton